

W. CAMPBELL.
Extensible Safety-Bridge.

No. 163,048.

Patented May 11, 1875.

Fig. 1

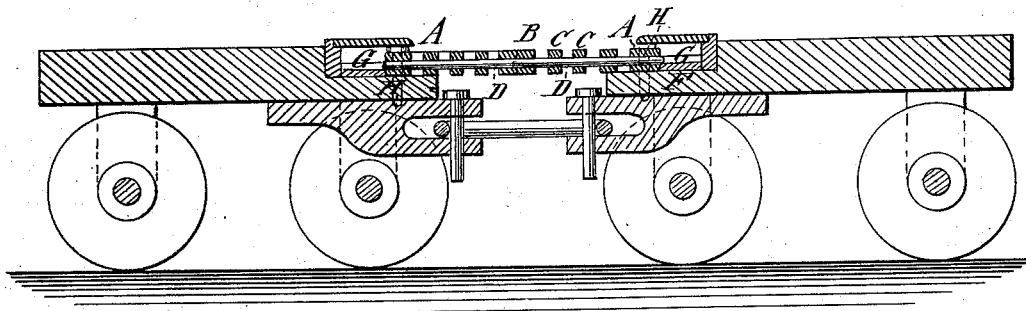
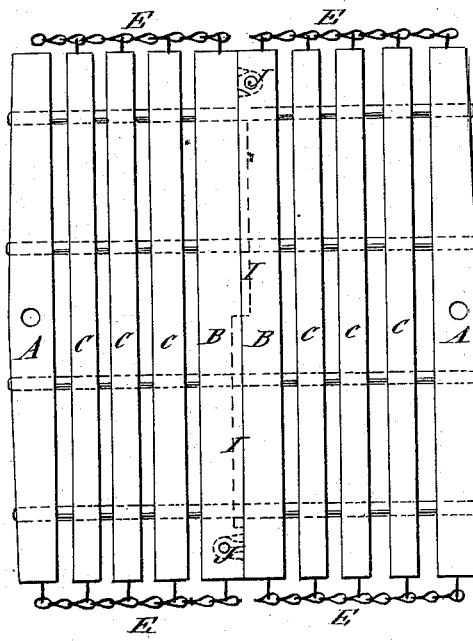
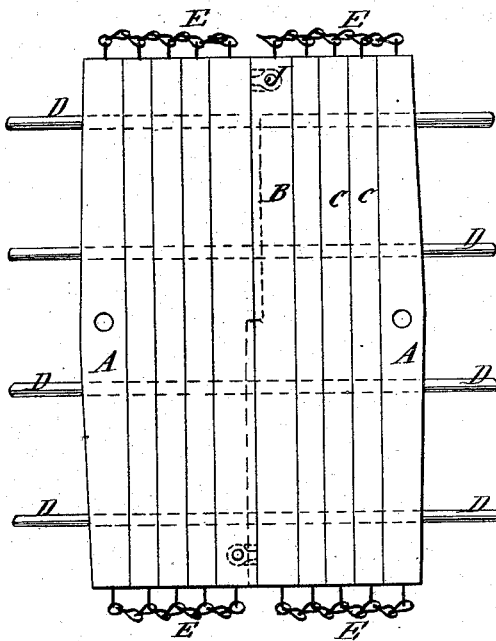


Fig. 2

Fig. 3



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM CAMPBELL, OF FLOYD C. H., VIRGINIA.

IMPROVEMENT IN EXTENSIBLE SAFETY-BRIDGES.

Specification forming part of Letters Patent No. **163,048**, dated May 11, 1875; application filed April 10, 1875.

To all whom it may concern:

Be it known that I, WILLIAM CAMPBELL, of Floyd Court House, in the county of Floyd and State of Virginia, have invented a new and Improved Extensible Car-Platform, of which the following is a specification:

My invention consists of a series of bars arranged crosswise of the car loosely on rods, which project from and slide forward and backward in another bar connected to the car for supporting them, the loose bars being linked together at the ends to limit the extent to which they may be separated; and the outermost bar of each platform being contrived to couple with the corresponding bar of another car, so as to form a practical platform, whereon persons may walk with safety from one car to the other when the cars are in motion, or the platform may be permanently connected at the middle in one part only for two cars, and be connected and disconnected with a car at one or both ends.

Figure 1 is a longitudinal sectional elevation of a couple of cars with my improved extensible platform. Fig. 2 is a plan of the platform contrived to open at the middle, and in its contracted state; and Fig. 3 is a plan of it extended, as when the cars are running.

Similar letters of reference indicate corresponding parts.

A represents the end bars, B the middle bars, and C the intermediate bars, of the platform. D are the rods on which the bars slide, and E the chains linking the bars together at the ends to limit their extension. The end bars A are connected to the car-platform F in a covered recess, G, by a pin, H, so that

the extensible platform extends from one to the other of the car-platforms, as shown. The rods are permanently attached to the middle bars B, and slide forward and backward in the end bars A, and in the intermediate bars C. If the extensible platform is to be connected and disconnected to the cars at the ends only one middle bar, B, will be used, and the rod will extend directly through it; but if it is to be separated at the middle two bars, B, will be used, the rods D will be divided thereat, and couplings will be used to fasten the two bars together. By preference, the bars will be tongued and grooved together, as indicated by the dotted lines I, and eye-studs J and spring-pins will be used, but other coupling contrivances may be employed. This platform may be applied to cars already in use, as well as to new ones.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of end bars A A, middle bar or bars B, intermediate bars C, rods D, and the links E, forming an extensible car-platform, substantially as set forth.

2. The combination of bars A A, middle bar or bars B, intermediate bars C, rod D, and connecting-links E with two cars, each of which has a covered recess, G, in the platform, all substantially as and for the purpose set forth.

WILLIAM CAMPBELL.

Witnesses:

E. W. GRAHAM,
Z. T. DOBYNS.